UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466

01503VIC-V

JUL 28 2000

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Theresa Santangelo-Dreiling
CDOT Project Manager
State of Colorado Department of Transportation
Office of Environmental Services
4201 East Arkansas Ave., Room 290
Denver, Colorado 80222

Re: UNDERGROUND INJECTION CONTROL (UIC)
Class V Injection Well
Rule Authorization Modification
Remediation Site Pilot Test
CDOT Region 6 Headquarters Facility
(EPA File #CO5000-04976)

Dear Ms. Santangelo-Dreiling:

The proposed modification to extend the time-frame for the pilot test at the above site as submitted by Harding Lawson Associates, in the behalf of CDOT in a letter dated July 22, 2000, was reviewed by the Environmental Protection Agency (EPA) Underground Injection Control (UIC) Class V team. Based on our understanding of the contamination and the groundwater treatment strategy, we believe this injection will not adversely impact ground water. For this reason, you may proceed with the plan and will not be required to operate under an UIC permit at this time. These following modifications to the original letter of Rule Authorization dated December 13, 1999, are as follows:

> The time-frame for the pilot test will be extended for six (6) months beginning July 31, 2000, and remaining in effect through January 31, 2001. This time frame should allow remediation to continue for the purpose of maintaining the present nutrient plume and level of microbial activity that is currently decreasing the contaminant level within the plume until the final remediation strategy can be implemented. The pilot test is extended with the understanding that performance monitoring of the system will continue through the extended period of operation.

Please note that further modification of this rule authorization will be required to expand this pilot test for the final remediation strategy at the site. At the time that proposed modification is submitted to EPA, please provide monitoring information generated from this pilot scale test to allow us to evaluate the effectiveness of this remediation method and the behavior of the injection constituents, particularly nitrate, in the groundwater downgradient from the point of injection in both the upper and lower sandstone units.

Any change in operating methods or conditions as specified in your plan dated November 9, 1999, and the modification proposal dated July 22, 2000, must be approved in advance by the EPA. Please be advised that this rule authorization pertains to Underground Injection Control (UIC) solely and does **not** relieve you from satisfying the Colorado Department of Public Health. Nor is it the intent of this authorization to preclude any other federal, state or local regulations that may apply.

Please send all correspondence to:

U. S. Environmental Protection Agency
Attention: Valois Shea
MAIL CODE: 8P-W-GW-UIC
999 18th Street, Suite 500
Denver, CO 80202-2466

If you have any questions concerning this rule authorization or Class V regulations, policies, and guidance, please contact Valois Shea at (303) 312-6276.

Sincerely,

D. Edwin Hogle
Director
Ground Water Program

cc: cc: Paul H. Weaverling
Harding Lawson Associates
707 17th Street, Suite 2400
Denver, CO 80202

MODIFICATION TO
STATEMENT OF BASIS
July 20, 2000

Based on conversation with Paul Weaverling at HLA, the results of the pilot study to date have shown favorable results in reducing contaminant levels within the plume. HLA is proposing to CDPHE to use this injection strategy as the long term remediation method. HLA is requesting an extension of the pilot test injection in order the maintain the steady-state of the nutrient injection plume and level of microbial activity that has been developed over the past 6 months. The pilot test injection has achieved a stable hydraulic head of the nutrient plume within the formations being remediated. If injection ceases at the end of the 6 month pilot test as originally planned, the nutrient injectate will be consumed by the microbial activity that is actively reducing the contaminant levels within the aquifer. As a result the injectate plume fronts will be lost and the project will have to regain the progress made to date in establishing a nutrient plume within the formation.

Recommendation: Approval of the extension of the pilot test injection in order to maintain the level of microbial activity until the final remediation strategy can be put into place will be beneficial in reducing the contaminant level more efficiently in the long term, allow continued maintenance of the injectate plume and present level of microbial activity, and will not cause any negative impact to groundwater.